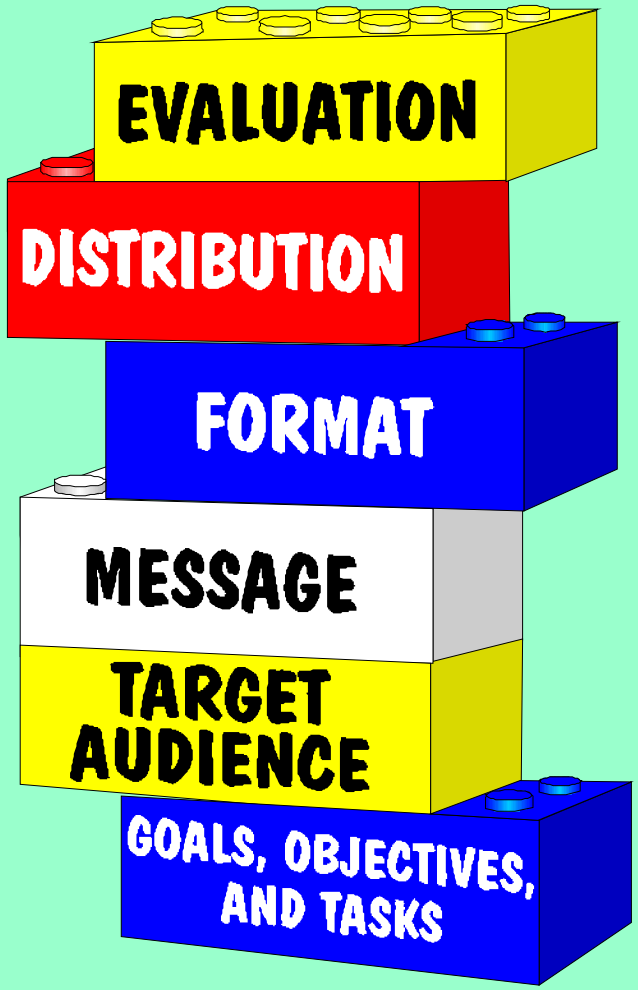
Getting in Step:

Building Blocks for Effective Education and Outreach



Lisa Knerr, Tetra Tech, Inc.

What did EPA say that State's should require?

- Implement a public education program to distribute educational materials to the community, or conduct equivalent outreach activities about the impacts of stormwater discharges on local waterbodies and the steps that can be taken to reduce stormwater pollution; and
- Determine the appropriate best management practices (BMPs) and measurable goals for this minimum control measure.

EPA recommends

- May use materials provided by others
- Inform public on how to get involved in stormwater program activities
- Tailor program to target specific groups of entities, particularly those likely to have significant storm water impacts
- Address the viewpoints and concerns of minority and disadvantaged communities

Suggestions from EPA

- ***Brochures or fact sheets*** for general public and specific audiences
- ***Recreational guides*** to educate groups such as golfers, hikers, paddlers, climbers, fishermen, and campers;
- ***Alternative information sources,*** such as web sites, bumper stickers, refrigerator magnets, posters for bus and subway stops, and restaurant placemats;
- ***A library of educational materials*** for community and school groups;

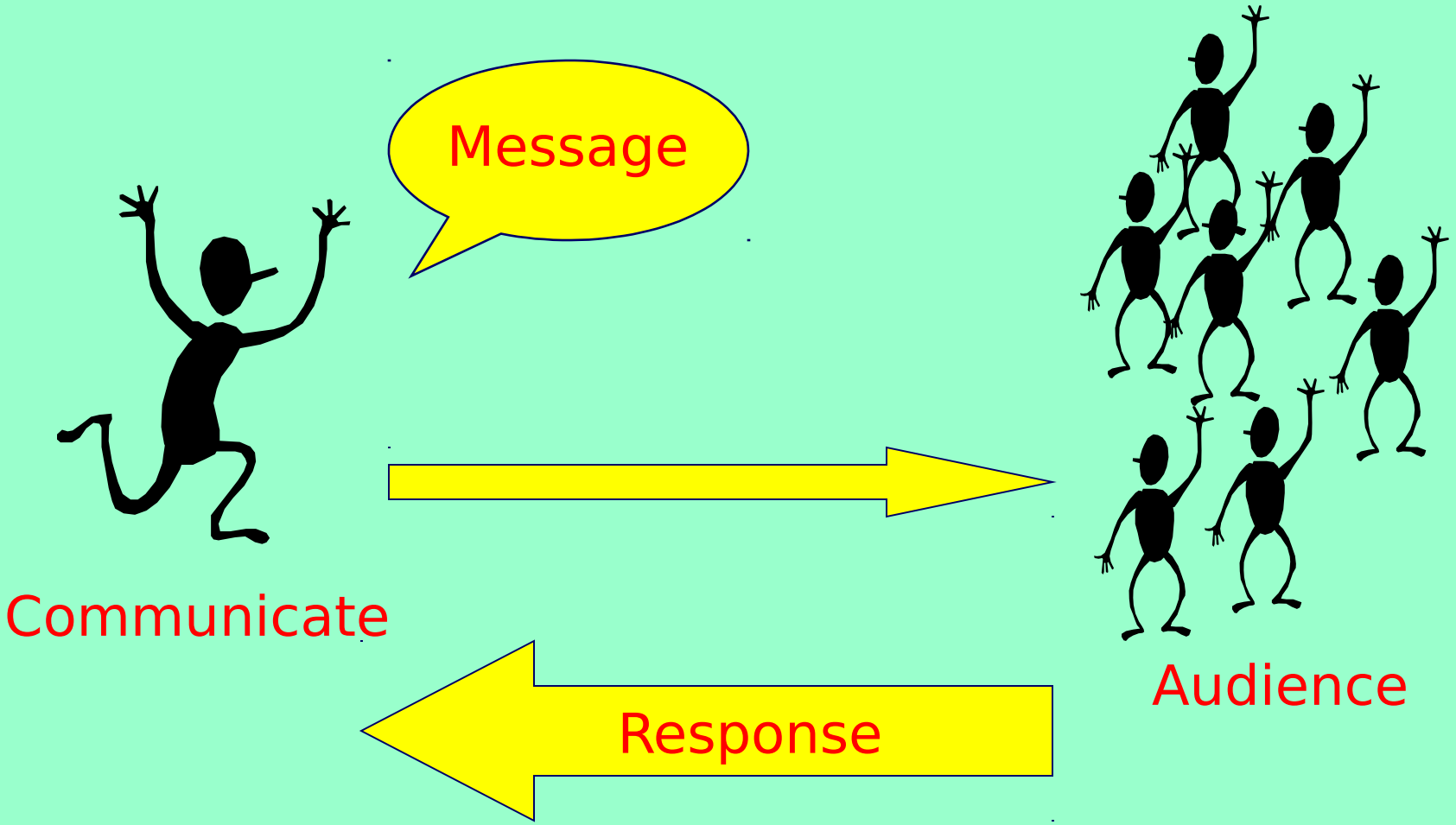
More suggestions from EPA

- ***Volunteer citizen educators*** to staff a ***public education task force;***
- ***Event participation*** with educational displays at home shows and community festivals;
- ***Educational programs*** for school-age children;
- ***Storm drain stenciling*** of storm drains
- ***Storm water hotlines*** for information and for citizen reporting of polluters;
- ***Economic incentives*** to citizens and businesses
- ***Tributary signage*** to increase public awareness of local water resources.

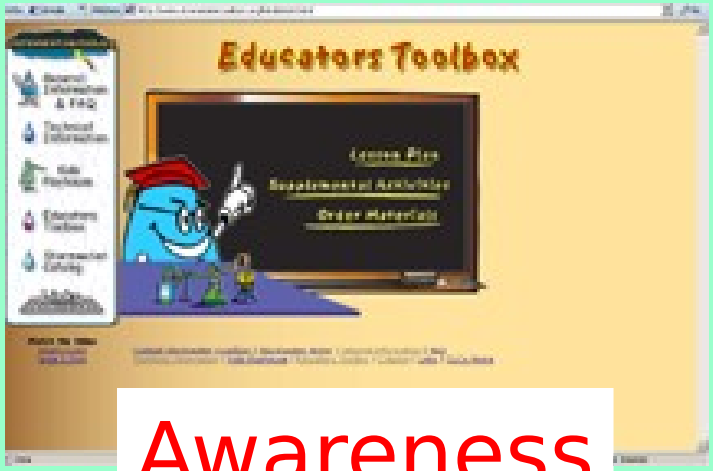
Application has to include

- BMP
- Schedule with milestones
- Frequency
- Responsible party
- Measurable goals

What Is Outreach?



Outreach changes over time...

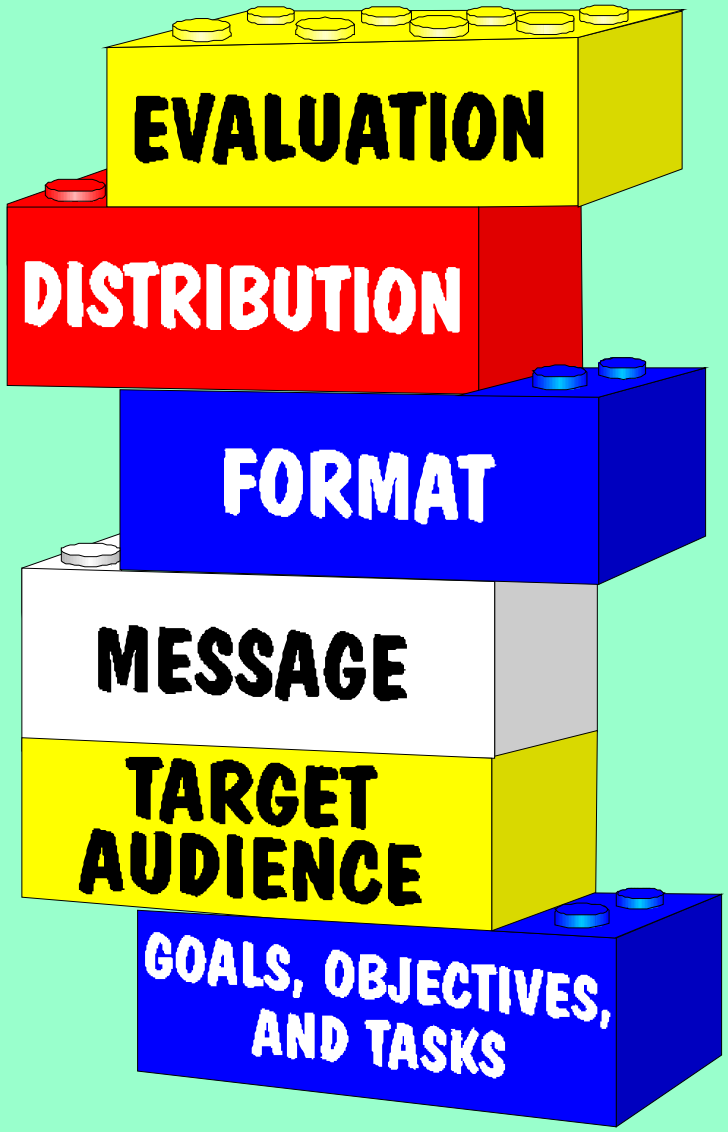


Awareness

Education

Action!

Outreach Building Blocks



Step 1: Driving Forces Goals and Objectives

Increase citizen awareness

Comply with Regulations

Reduce Stormwater Pollution

Driving Forces

- **Why do you need outreach?**
  - **New regulations**
  - **Public pressure**
  - **Political pressure**

Goals

- **General statements that express the broad focus of the entire planning management effort.**

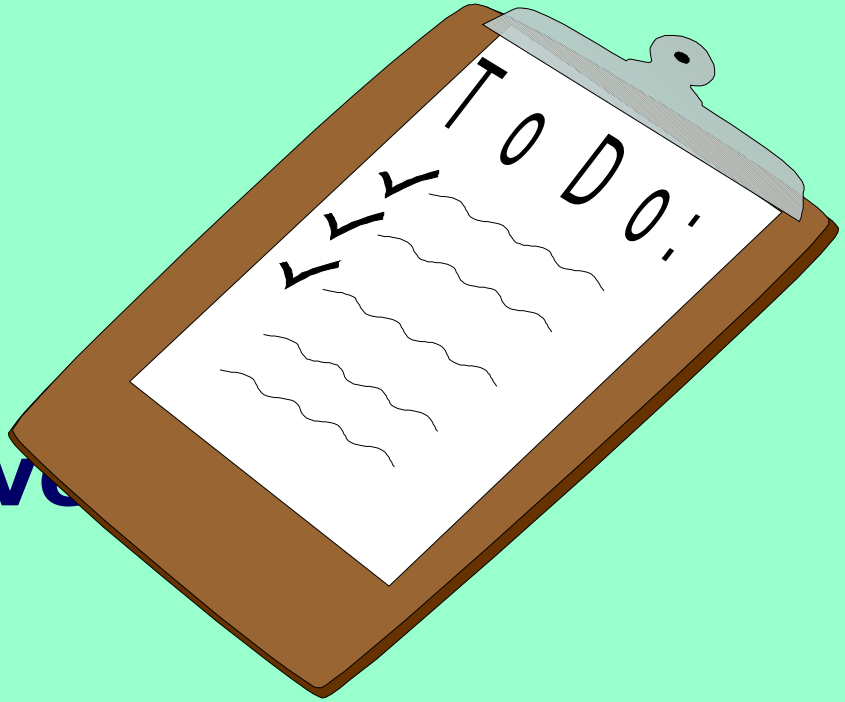
THE CITY OF REDMOND WASHINGTON
CITY OF REDMOND
SCOTT PROPERTY STORMWATER MANAGEMENT POND AND FUTURE NEIGHBORHOOD PARK
POND CONSTRUCTION START JULY 2000
POND LANDSCAPE PLANTING AND CONSTRUCTION COMPLETE OCTOBER 2001
PARK DEVELOPMENT TO BE DETERMINED
STORMWATER ENGINEERING CONTACT:
MIKE HALEY 556-2843
mhaley@ci.redmond.wa.us.
PARKS PLANNING CONTACT:
ROY LEHNER 556-2313

Example Goal

- **Make residents aware of the impacts of stormwater runoff to local water resources**
- **Make small construction operators aware of new regulations**

Objectives

- **Define outcomes that are:**
  - **S pecific**
  - **M easurable**
  - **A chievable**
  - **R elevant**
  - **T ime-sensitive**



Example Objectives

- **Develop unifying theme and logo by 9/04**
- **Identify newspaper outlet and write articles by 10/04**
- **Develop a brochure in English and Spanish by 10/04**
- **Develop text for web site by 10/04**
- **Develop and send construction operator workshop flyers 11/04**
- **Develop presentations for construction operator workshops by 12/04**

Step 2: Target Audience

Who Do We Need to Reach?

- **State Agencies**
  - **Large MS4s (Phase I)**
  - **Small MS4s (Phase II)**
- **MS4s**
  - **Industry/Commercial**
  - **Construction**
  - **Public**

Target Audience

- **Break down your audience by. . . .**
  - **Geographic location**
  - **Age**
  - **Ethnicity**
  - **Occupation**
  - **Industry**
    - **Commercial**
    - **Construction**
    - **Industrial**

Let’s break it down further

- State Agencies
  - MS4s (Large and Small)
    - Elected officials
    - Departmental officials
- MS4s
  - Industry/Commercial
    - Auto dismantlers
    - Concrete batch plants
  - Construction
    - Large operators
    - Small operators
  - Public
    - Homeowners
    - Children

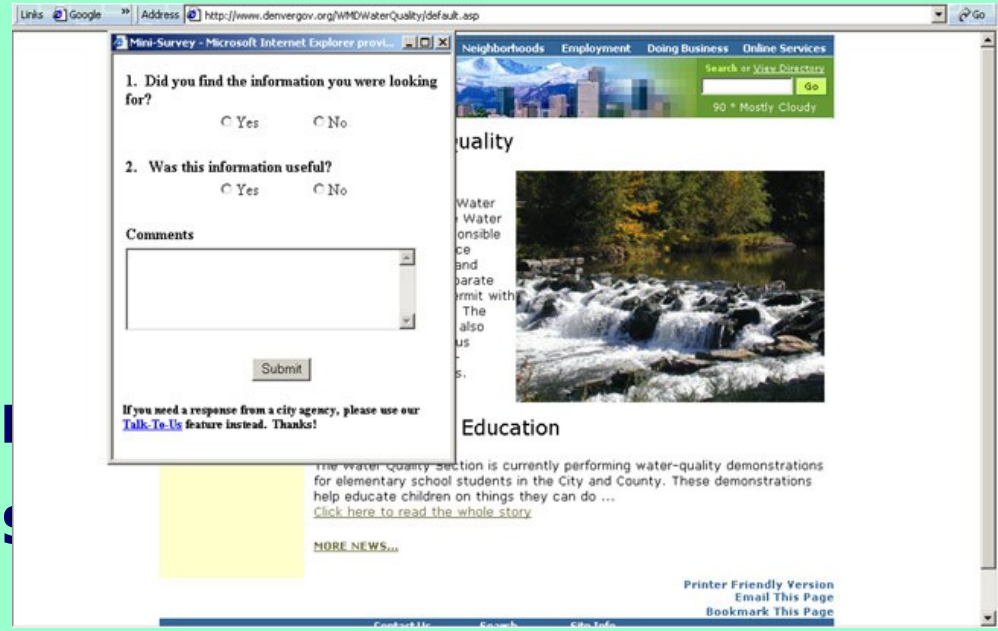
Understand your audience

- **Who they are**
- **What they do or don't do**
- **What motivates their behavior**
- **What motivates them to change behavior**
- **Where they get their news and information**

MDE
STORMWATER MANAGEMENT
& MOSQUITO ISSUES
Clearly, any standing water has the potential to promote mosquito growth. Some stormwater management practices use ponded water to promote water quality improvement. Therefore, there is the potential for contributing to mosquito problems. However, stormwater management is essential to mitigate the adverse effects of development on the environment. These effects include increased flooding, water quality impairment, reduced groundwater recharge, and stream channel erosion.
facilities is of paramount importance
and local governments make efforts
privately owned stormwater
ese efforts can certainly improve. A
f the value of these facilities will help
g available so that better
ved. A lack of maintenance typically
performance, poor drainage, and
tion growth. Temporary sediment and
mployed during construction also
ntenance activity.
tions in the year 2000. Included in
potential for mosquito breeding.
nagement practices require extended
permanent pool is required to drain
lve longer retention times, then
ing runoff and reduce stagnation.

Target Audience

- **Research the target audience**
  - **Focus groups**
  - **Phone interviews**
  - **Pre/post surveys**
  - **Community leade**
  - **Trade associations**



Think like a Corporation: Use Market Research

- **Market research helps you:**
  - **Determine how to correctly target your campaigns.**
  - **Identify audience behaviors and barriers to change.**
  - **Determine what you are doing right and wrong.**
  - **Evaluate your success with measurable data.**

Further Segmenting

- **Social Diffusion**
  - **When a new idea or behavior is adopted by 15 to 20 percent of an audience it has critical mass to spread on its own.**

Source: *Diffusion of Innovations,* by Dr. Everett M. Roger

Social Diffusion (cont)

- **Audience categories**
  - **Innovators -- (risk takers)**
    - **They are often venturesome and are well educated, high social status, upwardly mobile.**
  - **Early Adopters -- (decisive)**
    - **They are right behind the innovators.**
  - **Early Majority (cautious)**
    - **They are deliberate, information seekers.**
    - **They want to see results first.**

Social Diffusion (cont)

- **Audience categories (cont)**
  - **Late Majority (skeptical)**
    - **Largest segment, resist change, conservative**
  - **Laggards (good luck)**
    - **Most resistant to change**
    - **Very set in their ways--not as reasonable**

These usually make up the "big 20%"

- **Innovators -- (risk takers)**
  - **They are often venturesome and are well educated, high social status, upwardly mobile.**
- **Early Adopters -- (decisive)**
  - **They are right behind the innovators.**

Types of Market Research

- **Secondary**
- **Primary**

Secondary Research

- **Conduct secondary research first**
- **Secondary research is:**
  - **Information about your audience found often in published reports.**
- **Secondary research is done to find out:**
  - **Who makes up your target audiences**
  - **What binds them together? (demographics)**
  - **What is the potential size of the audience(s)?**
  - **How do they communicate with one another?**

Secondary Research (cont)

- **Sources:**
  - **Web-based directories and resources**
    - **www.census.gov**
    - **http://www.neetf.org/roper/roper.shtm**
  - **Nonprofit agencies**
  - **Government agencies (www.fedstats.gov)**
    - **State agencies**
    - **Local agencies**
  - **Trade associations**
  - **Library sources**
    - **Magazines and newspapers**

Secondary Research (cont)

- **Pros and cons**
  - **Pros**
    - **Often free or low cost**
    - **Internet age makes resources readily available**
  - **Cons**
    - **Just the facts (ma'am)**
    - **Doesn't tell about people's choices and behaviors, motivators, and barriers**

Primary Research

- **Primary research consists of:**
  - **Quantitative Research**
    - **Surveys**
  - **Qualitative Research**
    - **Focus groups**
- **Purpose:**
    - **Get to know your audience's environmental habits.**
    - **Focus on specific areas of interest.**

Primary Research (cont)

- **Quantitative research**
  - **Surveys**
    - **Surveys are a type of quantitative research designed to collect specific data from a sample audience.**
    - **Surveys can be in the form of email, snail mail, in person, or on the telephone--and usually target a specific audience.**

Primary Research (cont)

- **Four steps to conducting a survey**
  - **Select the sample audience**
  - **Design the survey for your audience**
  - **Conduct the survey**
  - **Analyze the data**
- **Survey questions should be simple, but specific**
- **Provide incentives**
- **Do-it-yourself as much as possible; however, be sure survey is not biased**

Primary Research (cont)

- **Pros and cons of surveys**
  - **Pros**
    - **Identify activities and behaviors of target audiences.**
    - **Identify beliefs and perceptions of target audiences.**
    - **Collect specific data about your audience's current behaviors.**
  - **Cons**
    - **Time and effort**
    - **Cost (especially if all project facets are hired out)**

Primary Research (cont)

- **Qualitative research**
  - **Community discussions**
  - **Interviews**
  - **Focus groups**
- **Surveys reveal what people are doing and what they believe; qualitative research reveal why people do what they do and believe what they believe.**

Primary Research (cont)

- **Focus groups preparation**
  - **Telephone screener questionnaire**
    - **Recruitment tool for focus group sessions**
  - **Discussion Guide (script)**
    - **Developed to guide the discussion**
      - **Includes discussion of topic area**
      - **Testing of messages, etc.**
      - **Helps discussion leader stay on track**
  - **Location/facilities**
    - **Focus groups are usually held a professional location**

Primary Research (cont)

- During the focus group session
  - About 10 pre-screened participants attend
    - They are offered small compensation.
    - They are offered food and beverages at the session.
  - Session begins
    - Session sponsors sit in adjoining room to observe.
    - Moderator introduces him/herself and the topic.
    - Video/audio taping provides accurate record.
    - Discussion moves from general to specific.

Primary Research (cont)

- **Focus group pros and cons**
  - **Pros**
    - **Participants often offer reasons behind their opinions & behaviors.**
    - **In-depth discussion of a topic can provide “good data.”**
    - **A properly recruited small number of people can provide reliable information.**
    - **Can test out educational materials**
  - **Cons**
    - **Logistics**
    - **Cost**

Market Research Costs

- **Surveys**
  - **Cost ranges vary based on:**
    - **Do you purchase a mailing, phone or email list?**
    - **Who conducts the survey/analyzes results?**
    - **Sample size/medium**
- **Phone**
  - **Typical -- $5,000 - $15,000 ($40 per interview)**
    - **Does not include detailed analysis and report writing**
- **Mail**
  - **Typical $5,000 - $7,000 (200 responses)**

Market Research Costs

- **Email**
  - **Typical -- $3,000 - $5,000**
- **In-person**
  - **Varies widely -- $300 – $5,000**
- **Cost-saving Tips**
  - **Work in-house as much as possible**
    - **“free” experts in other divisions/partnering organizations could write survey questions and train volunteers/interns to conduct surveys**
  - **Ask if mall surveys will suffice (in-person)**

Market Research Costs

- **Focus groups**
  - **Nationally -- $4,000 - $6,000 per session**
  - **Locally -- $2,000 - $5,000 Per session**
- **Cost-savings tips**
  - **Do the initial stakeholder research and inviting**
  - **Do the script (leave the moderating to a neutral party)**
  - **Use a partner's facility (free)**
  - **Ask moderator to write summary and give you flip charts (vs. video tape or 2-way glass)**

Think Blue Public Survey

Storm Water Pollution Prevention Program
THINK BLUE
You're the solution to storm drain pollution.
Protecting our beaches, bays, and watersheds

- **San Diego's Residential Stormwater Survey**
  - **Phone Survey (random digit dial)**
  - **Baseline in 2001, follow-up in 2002, 2003**
- **Some findings**
  - **19% decrease in # of people who dump paint down the storm drain**
  - **8% increase in # of people correctly attributing beach closures to polluted runoff (not sewage)**
  - **3% decrease in # of people who think that what enters the storm drain goes to a WWTP.**

Step 3: Message

“!”

IF YOU THINK
PICKING UP
DOG POOP
IS UNPLEASANT,
TRY DRINKING IT.
Pet waste washes into storm drains, polluting our rivers, lakes and drinking water sources. Get the scoop.
1-800-CLEAN-UP
PLEASE DON'T FEED THE STORM DRAIN

Message

- Specific to target audience
- Should have direct benefit to target audience
  - “Improves/protects resources”
  - “Costs less”
  - “Improves health”
  - “It’s convenient”
  - “It’s free”

Remember the 3 H's for the Public

Health

Drinking water, swimming, their children's health

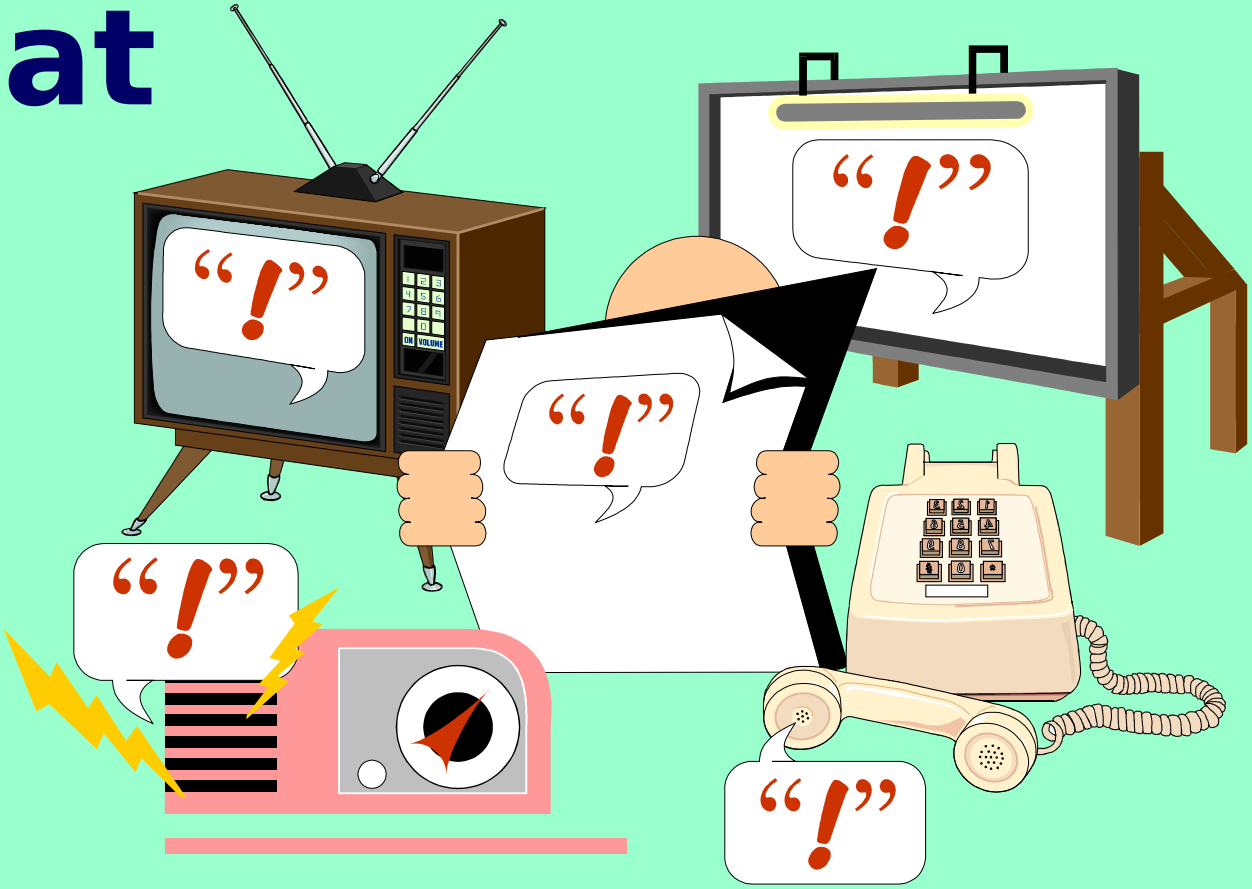
Home

Property values, flooding

Heritage

Historical significance, future generations

Step 4: Format



Format: Displaying the Message

Print	"Stuff"	Events
Newsletters	Door hangars	Festivals
Fact sheets	Magnets	Clean-ups
Flyers	Bumper stickers	
Magazine articles	Tote bags	Stenciling
Posters, displays	Frisbees	Training
Billboards	Lapel pins	Mini-courses
Transit cards	Stickers	Seminars
Utility bill inserts		Presentations

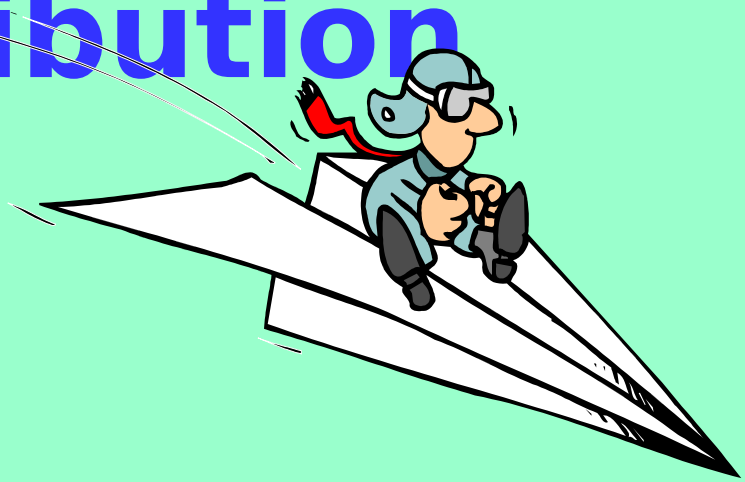
PSAs

- Radio
  - Affordable
  - Stations offer free PSA time
- TV
  - More expensive
  - Stations offer free PSA time
  - Americans watch more than 4 hours/day

Recent Survey of Construction Workers in Hawaii

- Hold regular safety meetings
  - Not water quality BMP meetings
  - Best time to slip in CWA/BMP info.
- Brochures are ineffective
  - Videos and meetings are better
  - Company incentives
- More inspections and stricter fines would curtail worksite offenses
- General contractor informs supervisors and foremen who inform the workers

Step 5: Distribution



- How will you distribute your materials?
- Who will distribute the message?

Distribution

Delivering the message . .

Mail
Phone
Door-to-door
Events
Presentations

Piggybacking
Media
Stakeholder-stakeholder
Conferences/workshops
Targeted businesses

Hey kids, *Keeping our city clean is an important job!*

Smith & Jones remind you that a very important part of keeping our city clean means not littering and keeping the streets, gutters and storm drains clean, too. Did you know that anything that gets into our storm drain system ends up in lakes, rivers and streams and can be harmful to animal and plant life?

The only thing that should ever go into a storm drain is clean water.

Remember, never throw anything on the ground or out a car window, and remind your friends and parents not to litter, too.

Try to help the clean water drop make its way from the storm drain to the lake.

start here

Litter on Fresno freeways and highways pollutes Fresno waterways. Litter that finds its way into highway storm drains could end up harming the area's water system, including the lakes and parks which residents enjoy.

There are many ways you can help to prevent this kind of pollution:

- Never throw any trash or litter on the ground.
- Never throw anything out of a car or truck window.
- Always carry a litter bag in your car.
- Set an example for others by not littering.
- Pick up litter in your neighborhood.

Thank you for helping keep Fresno clean!

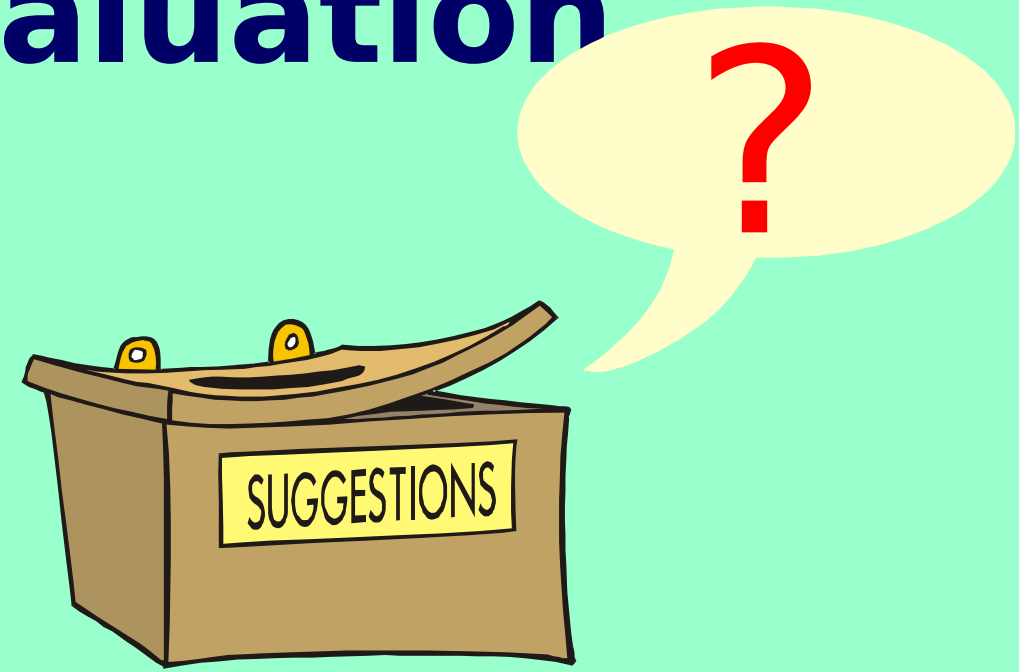
DON'T TRASH FRESNO
www.DontTrashCalifornia.info

smile™
Proud Partner

Who is your messenger?

- **Who does your audience trust?**
- **Who does your audience believe?**

Step 6: Evaluation



Why evaluate?

- **Measurable goals**
- **Program success justification**
  - **Shows a cost-effective program**
  - **Justifies loan/grant money**
  - **Show impacts and benefits**
- **Understand the good, bad and ugly**
  - **What went right? What went wrong?**
- **Program refinements and improvements**
  - **Adaptive management**
- **Helps with your annual report!**

Example: Measuring progress in implementing the BMP

- **BMP: Require development of an outreach plan.**

- **Measurable Goal: An outreach plan that identifies target audiences and effective communication channels will be developed at the end of the first permit year and implemented beginning in year two.**

Example: Tracking Changes in Awareness and Behavior

- **BMP: Run newspaper ads with helpful tips for stormwater pollution prevention.**

- **Measurable Goal: Conduct pre-survey of stormwater awareness during the first permit year to gather baseline data. Run ads during years 2 – 4. Conduct post-survey during the fifth permit year to determine changes in stormwater awareness due to ads. OR how many articles were published and readership of newspaper(s)**

Evaluation: Administrative Indicators

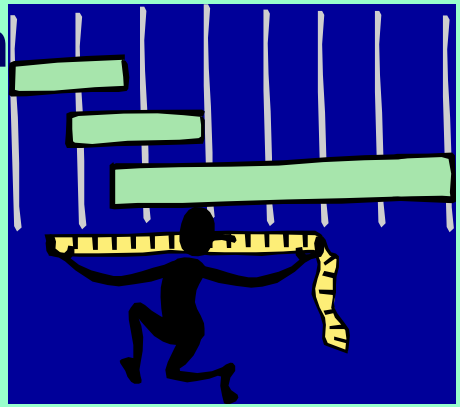
- Number of newspaper stories printed
- Number of people educated/trained
- Number of public meetings held
- Number of volunteers attending activities
- Number of storm drains stenciled

Evaluation: Impact

- **Those social and environmental indicators related to the achievement of the goals and objectives of the program.**
  - **Did the target audience change their behavior?**
  - **Are there stormwater quality improvements?**

Evaluation: Impact

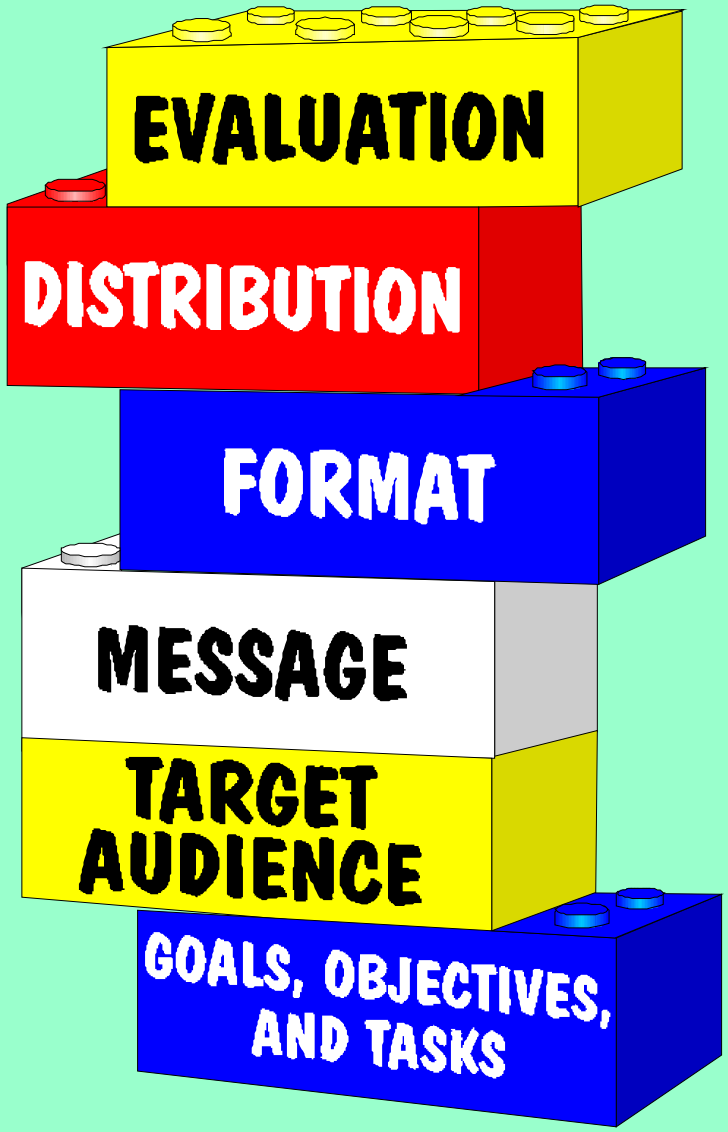
- **Number of gallons of used paint collected collected**
- **Number of illicit discharges corrected**
- **Number of people surveyed with increased knowledge of stormwater issues**
- **Number of people surveyed with changes in behavior**



Evaluation Tools

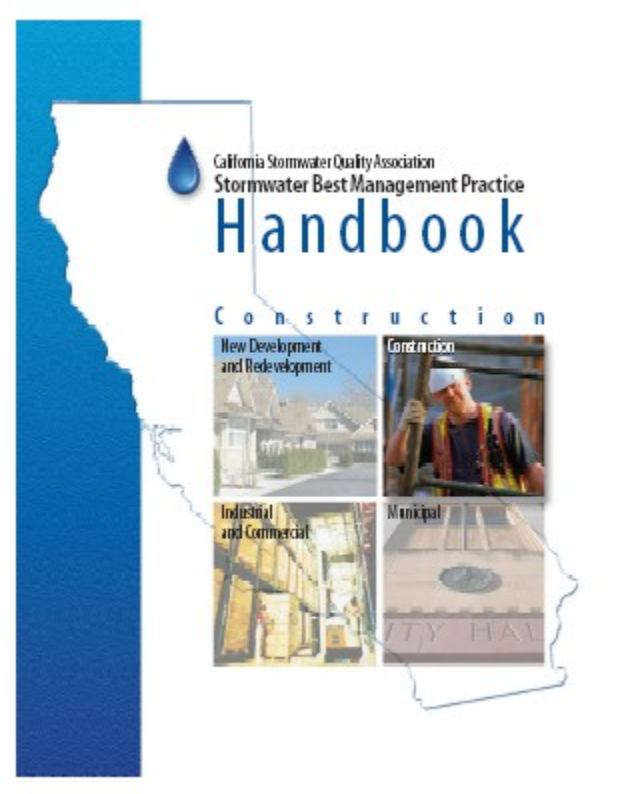
- **Assessment tools include:**
  - **Focus groups**
  - **Surveys**
  - **Interviews**
  - **Water quality data**
- **Tools may be part of before/after approach**
  - **Remember to get your baseline data so you can measure success**

Outreach Building Blocks



Resources and Tools

- City of Boise Education and Outreach Publications
  - http://www.cityofboise.org/public_works/services/water/storm_water/manual/index.aspx?id=home#docs
- Idaho DEQ Catelogue of Stormwater BMPs
  - http://www.deq.state.id.us/water/stormwater_catalog/index.asp
- Washington Department of Ecology Technical Assistance
  - http://www.ecy.wa.gov/programs/wq/stormwater/tech.html
- California Stormwater Quality Association BMP handbooks
  - http://www.cabmphandbooks.com/Documents/Construction/Construction.pdf



Case Study: WASH Project

- **WASH Project contracted the city of Boulder Stormwater Education Program**
- **1.5 FTE Water Education Specialists**
- **.25 FTE Watershed Coordinator**
- **2004 budget =$151,290**

Programs

- Get to Know Your H2O School Education Program
  - WatershED Teacher Training
  - Classroom and Field Programs
  - Children's Water Festival
- Community Outreach Program
  - Festival Booths
  - Water Quality Campaign

WatershED Teacher Training

- Two day workshop held in Summer or Fall
- One lead staff member with staff assistance
- “Train the Trainer”
- Provide background knowledge and hands-on activities
- Distribute WatershED Resource Guide

Classroom and Field Programs

- Free 1- 2 hour programs
- Year-round programs facilitated by WASH Staff
- Based on WatershED, Project WET, Enviroscape and related activities
- Advertised via brochure, web site and word of mouth
- Standards-based programs
- Reached over 4,300 students in the 2003-2004 school year

Children's Water Festival

- Average cost = $3,000 + in-kind donations.
- Costs include:
  - **T-shirts for Level 2 participants, volunteers and presenters**
  - **Printing Level 2 materials**
  - **Folders for Level 2**
  - **Food**
  - **Staff time (not included above)**

WASH Contact

Contact Information:

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WASH Education Program

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www.basin.org/wash